



January 24, 2008

Charles L.A. Terreni  
Chief Clerk and Administrator  
South Carolina Public Service Commission  
Post Office Drawer 11649  
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.  
Power Plant Performance Report (December 2007)  
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed are an original and one copy of the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of December 2007.

Sincerely,

s/ Len S. Anthony

Len S. Anthony  
Deputy General Counsel – Carolinas

LSA/dhs  
Enclosures  
45612

c: John Flitter (ORS)

December 2007

The following units had no off-line outages during the month of December:

Brunswick Unit 1  
Brunswick Unit 2  
Harris Unit 1  
Robinson Unit 2  
Roxboro Unit 2  
Roxboro Unit 3  
Mayo Unit 1

Roxboro Unit 4

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:15 on October 19, and was returned to service at 2:26 on December 2. The total duration of this outage was 1,036 hours and 11 minutes. The unit was offline for 26 hours and 26 minutes during December.
- B. Cause: Major Turbine Outage, Boiler Inspections, and Installation of Environmental Modifications
- C. Explanation: The unit was taken out of service for a major turbine outage, and boiler repairs and inspections. Additionally, the installation of the flue gas desulfurization system was completed.
- D. Corrective Action: Planned outage activities, including boiler inspections, turbine overhaul, periodic, and preventative maintenance, were completed. Installation of the flue gas desulfurization system was also completed. Following the completion of planned outage activities, the unit was returned to service.

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 0:05 on December 14, and was returned to service at 11:16 on December 16, a duration of 59 hours and 11 minutes.
- B. Cause: Removal of Turbine Stop Valve Screens
- C. Explanation: The unit was taken out of service for a planned outage to remove the turbine stop valve screens.
- D. Corrective Action: Upon completion of the work to remove the turbine stop valve screens, the unit was returned to service.

	Month of December 2007		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	700,923 MWH		7,881,905 MWH		2
Capacity Factor	100.44 %		95.92 %		
Equivalent Availability	97.67 %		93.51 %		
Output Factor	100.44 %		101.36 %		
Heat Rate	10,279 BTU/KWH		10,352 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	326,159	3.97	3
Partial Scheduled	16,293	2.33	53,148	0.65	4
Full Forced	0	0.00	114,389	1.39	5
Partial Forced	0	0.00	39,441	0.48	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	697,872		8,216,880		8

\* See 'Notes for Nuclear Units' filed with the January 2007 report.

\*\* Gross of Power Agency

	Month of December 2007		Twelve Month Summary		See Notes*
MDC	937 MW		937 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	709,322 MWH		7,140,258 MWH		2
Capacity Factor	101.75 %		86.99 %		
Equivalent Availability	99.98 %		86.31 %		
Output Factor	101.75 %		99.62 %		
Heat Rate	10,450 BTU/KWH		10,556 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
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Full Scheduled	0	0.00	484,184,394	5,898.85	3
Partial Scheduled	132	0.02	83,369	1.02	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	0	0.00	1,403	0.02	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	697,128		8,208,120		8

\* See 'Notes for Nuclear Units' filed with the January 2007 report.

\*\* Gross of Power Agency

	Month of December 2007		Twelve Month Summary		See Notes*
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MDC	900 MW		900 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	679,524 MWH		7,403,050 MWH		2
Capacity Factor	101.48 %		93.90 %		
Equivalent Availability	98.95 %		92.94 %		
Output Factor	101.48 %		100.59 %		
Heat Rate	10,834 BTU/KWH		10,842 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	523,410	6.64	3
Partial Scheduled	7,036	1.05	7,901	0.10	4
Full Forced	0	0.00	1,320	0.02	5
Partial Forced	0	0.00	66,157	0.84	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	669,600		7,884,000		8

\* See 'Notes for Nuclear Units' filed with the January 2007 report.

\*\* Gross of Power Agency

	Month of December 2007		Twelve Month Summary		See Notes*
MDC	710 MW		710 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	564,272 MWH		5,737,923 MWH		2
Capacity Factor	106.82 %		92.26 %		
Equivalent Availability	100.00 %		88.58 %		
Output Factor	106.82 %		103.27 %		
Heat Rate	10,515 BTU/KWH		10,809 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	628,586	10.11	3
Partial Scheduled	0	0.00	16,784	0.27	4
Full Forced	0	0.00	34,707	0.56	5
Partial Forced	0	0.00	24,164	0.39	6
Economic Dispatch	0	0.00	9,775	0.16	7
Possible MWH	528,240		6,219,600		8

\* See 'Notes for Nuclear Units' filed with the January 2007 report.

	Month of December 2007		Twelve Month Summary		See Notes*
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MDC	741 MW		741 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	396,970 MWH		4,679,863 MWH		2
Capacity Factor	72.01 %		72.10 %		
Equivalent Availability	100.00 %		91.43 %		
Output Factor	72.01 %		76.60 %		
Heat Rate	10,410 BTU/KWH		10,363 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	346,022	5.33	3
Partial Scheduled	0	0.00	134,545	2.07	4
Full Forced	0	0.00	35,457	0.55	5
Partial Forced	0	0.00	40,519	0.62	6
Economic Dispatch	154,334	27.99	1,254,755	19.33	7
Possible MWH	551,304		6,491,160		8

\* See 'Notes for Fossil Units' filed with the January 2007 report.

\*\* Gross of Power Agency



	Month of December 2007		Twelve Month Summary		See Notes*
MDC	639 MW		639 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	443,264 MWH		4,481,482 MWH		2
Capacity Factor	93.24 %		80.06 %		
Equivalent Availability	99.98 %		85.72 %		
Output Factor	93.24 %		91.71 %		
Heat Rate	8,994 BTU/KWH		9,176 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	546,419	9.76	3
Partial Scheduled	0	0.00	156,916	2.80	4
Full Forced	0	0.00	80,589	1.44	5
Partial Forced	100	0.02	15,654	0.28	6
Economic Dispatch	32,052	6.74	333,288	5.95	7
Possible MWH	475,416		5,597,640		8

\* See 'Notes for Fossil Units' filed with the January 2007 report.

	Month of December 2007		Twelve Month Summary		See Notes*
MDC	705 MW		705 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	355,332 MWH		4,592,828 MWH		2
Capacity Factor	67.74 %		74.37 %		
Equivalent Availability	96.19 %		93.77 %		
Output Factor	67.74 %		77.28 %		
Heat Rate	11,136 BTU/KWH		11,056 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	104,552	1.69	3
Partial Scheduled	18,802	3.58	84,071	1.36	4
Full Forced	0	0.00	102,613	1.66	5
Partial Forced	1,200	0.23	93,523	1.51	6
Economic Dispatch	149,186	28.44	1,198,214	19.40	7
Possible MWH	524,520		6,175,800		8

\* See 'Notes for Fossil Units' filed with the January 2007 report.

	Month of December 2007		Twelve Month Summary		See Notes*
MDC	698 MW		698 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	264,793 MWH		3,815,467 MWH		2
Capacity Factor	50.99 %		62.40 %		
Equivalent Availability	81.61 %		84.50 %		
Output Factor	58.13 %		72.02 %		
Heat Rate	11,047 BTU/KWH		10,523 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	59,760	11.51	804,294	13.15	3
Partial Scheduled	35,741	6.88	120,696	1.97	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	0	0.00	22,887	0.37	6
Economic Dispatch	159,018	30.62	1,348,865	22.06	7
Possible MWH	519,312		6,114,480		8

\* See 'Notes for Fossil Units' filed with the January 2007 report.

\*\* Gross of Power Agency

Plant	Unit	Current MW Rating	January 2006 - December 2006	December 2007	January 2007 - December 2007
Asheville	1	197	72.44	78.84	63.64
Asheville	2	186	60.37	81.05	73.17
Cape Fear	5	144	72.32	67.53	78.67
Cape Fear	6	173	65.99	68.47	72.38
Lee	1	77	47.56	62.79	62.15
Lee	2	77	43.52	52.47	62.47
Lee	3	252	60.06	74.95	66.38
Mayo	1	741	67.04	72.01	72.10
Robinson	1	180	78.19	89.84	74.63
Roxboro	1	383	77.79	77.86	78.01
Roxboro	2	639	81.26	93.24	80.06
Roxboro	3	705	59.60	67.74	74.37
Roxboro	4	698	65.20	50.99	62.40
Sutton	1	97	44.30	45.17	56.26
Sutton	2	106	46.43	53.86	63.19
Sutton	3	403	54.54	54.18	55.53
Weatherspoon	1	49	36.15	45.24	53.86
Weatherspoon	2	49	37.40	43.47	55.68
Weatherspoon	3	79	50.52	62.79	68.70
Fossil System Total		5,235	65.25	69.43	69.82
Brunswick	1	938	87.51	100.44	95.92
Brunswick	2	937	89.68	101.75	86.99
Harris	1	900	89.16	101.48	93.90
Robinson Nuclear	2	710	103.59	106.82	92.26
Nuclear System Total		3,485	91.80	102.36	92.25
Total System		8,720	75.80	82.59	78.79

Amended SC Fuel Rule  
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of  $\geq 92.5\%$  during the 12 month period under review. For the test period April 1, 2007 through December 31, 2007, actual period to date performance is summarized below:

Period to Date: April 1, 2007 to December 31, 2007

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period                      A = 21,080,061 MWH

B. Total number of hours during SCPSC test period                                      B =            6,601 hours

C. Nuclear system MDC during SCPSC test period (see page 2)                      C =            3,485 MW

D. Reasonable nuclear system reductions (see page 2)                                  D =    2,249,523 MWH

A. SC Fuel Case nuclear system capacity factor:  $[(A + D) / (B + C)] * 100 = 101.4\%$

NOTE:

If Line Item E  $> 92.5\%$ , presumption of utility's minimum cost of operation.

If Line Item E  $< 92.5\%$ , utility has burden of proof of reasonable operations.

Amended SC Fuel Rule  
Nuclear System Capacity Factor Calculation  
Reasonable Nuclear System Reductions  
Period to Date: April 1, 2007 to December 31, 2007

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	0	392,521	480,210	628,587	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	492,066	20,123	75,776	34,707	
Reasonable coast down power reductions (MWH)	0	0	0	6,195	
Reasonable power ascension power reductions (MWH)	31,774	32,350	0	22,063	
Prudent NRC required testing outages (MWH)	4,225	14,274	456	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	14,196	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	528,065	459,268	556,442	705,748	
Total reasonable outage time exclusions [carry to Page 1, Line D]					2,249,523